



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/051,199

01/22/2002

Yoichi Asano

Q68167

7169

7590

04/01/2004

SUGHRUE MION, PLLC
2100 Pennsylvania Avenue, NW
Washington, DC 20037-3213

EXAMINER

CANTELMO, GREGG

ART UNIT

PAPER NUMBER

1745

DATE MAILED: 04/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/051,199	Applicant(s) ASANO ET AL.	
	Examiner Gregg Cantelmo	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 14-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. In response to the amendment received January 29, 2004:
 - a. The specification objection is withdrawn in light of the amendment to the abstract;
 - b. The prior art rejections of Yen and Fenton are withdrawn;
 - c. The prior art rejections of Goto stand;
 - d. The prior art rejections of US '513 stand;
 - e. The double patenting rejections.

Priority

2. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Response to Priority Issue

3. It should be apparent from item 2 of the previous office action, that the Examiner has previously acknowledged receipt of the foreign priority documents. The issue at hand is that the instant application lacks certified translations of the priority documents. Such translations are required in order to ascertain the extent to which the priority papers disclose the claimed invention.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(f) he did not himself invent the subject matter sought to be patented.

5. Claims 1-13 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. patent No. 6,555,626 (Goto).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Goto claims a composite polymer electrolyte membrane and fuel cell comprising monomer A: 4,4'-bis (4-chlorobenzoyl) diphenylether and monomer B: 2,5,-dichloro-4-phenoxybenzophenone. The resultant mixture is sulfonated (claim 5, as applied to claims 1, 3, 4, and 6-13).

Art Unit: 1745

The first monomer is present in a mol amount between 3-60 mol % and the second monomer is present in a mol amount between 40-97 mol % (claim 1 as applied to claims 2, 3, 5, 6, 8, 9).

The electron attractive group includes -CONH-, -COO-, -SO-, etc. (claim 2 as applied to claim 4).

The prior art product has the same sulfonated polyarylene monomer in the same molar proportion and thus the product is expected to have the same ion exchange capacity as recited in claims 7 and 10).

Response to Arguments

6. Applicant's arguments filed January 29, 2004 have been fully considered but they are not persuasive.

Applicant argues that Goto claims a copolymer and not a mixture of two types of polymer electrolytes as recited in claims 1 and 13.

The Examiner respectfully disagrees.

The instant claim does not preclude that the composite electrolyte is a copolymer of the two polymer electrolytes. Additionally a copolymer is inherently a repeating mixture of the two polymer materials as recited in the claims of Goto. For example a copolymer A/B is a mixture of polymer units A and B.

Therefore, contrary to Applicant's arguments, the claims of Goto are still held to read on the instant claims.

In addition it would appear that the monomer units of the instant claims are subsequently polymerized (see page 61 of the specification).

Claim Rejections - 35 USC § 102

7. Claims 1-13 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2002/0164513 (US '513).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

US '513 claims a composite polymer electrolyte and fuel cell comprising a sulfonated polyarylene polymer and hydrocarbon polymer sulfonate other than a sulfonated polyarylene polymer (claim 12 as applied to claims 1 and 13).

The amount of the two polymers are the same as the instant claims (claim 12 as applied to claims 2, 3, 5, 6, 8 and 9).

The ionic conductivity overlaps (claim 16 as applied to claims 7 and 10).

The second polymer is sulfonated polyetheretherketone (claim 19 as applied to claims 11 and 12).

8. Claims 1-13 are rejected under 35 U.S.C. 102(f) because the applicant does not appear to have invented the claimed subject matter.

See items 5 and 6 above, incorporated herein.

Response to Arguments

9. Applicant's arguments filed January 29, 2004 have been fully considered but they are not persuasive.

Applicant argues that US '513 claims a copolymer and not a mixture of two types of polymer electrolytes as recited in claims 1 and 13.

The Examiner respectfully disagrees.

The instant claim does not preclude that the composite electrolyte is a copolymer of the two polymer electrolytes. Additionally a copolymer is inherently a repeating mixture of the two polymer materials as recited in claim 12 of US '513.

Therefore, contrary to Applicant's arguments, the claims of '513 are still held to read on the instant claims.

In addition it would appear that the monomer units of the instant claims are subsequently polymerized (see page 61 of the specification).

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double

Art Unit: 1745

patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 1-13 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 6,555,626 (Goto). Although the conflicting claims are not identical, they are not patentably distinct from each other.

In the event that Applicant overcomes the 102(e) rejection above, the claimed invention of Goto are not held to be patentably distinct from one another.

See item 10 above, incorporated herein.

12. Claims 1-13 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 12-26 of U.S. patent Application Publication No. 2002/0164513 (US '513). Although the conflicting claims are not identical, they are not patentably distinct from each other.

In the event that Applicant overcomes the 102(e) rejection above, the claimed invention of US '513 are not held to be patentably distinct from one another.

See item 11 above, incorporated herein.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

13. Applicant's arguments filed January 29, 2004 have been fully considered but they are not persuasive.

See items 6 and 9 above, incorporated herein.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregg Cantelmo whose telephone number is (571) 272-1283. The examiner can normally be reached on Monday to Thursday from 9 a.m. to 6 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1745

FAXES received after 4 p.m. will not be processed until the following business day.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregg Cantelmo
Primary Examiner
Art Unit 1745

gc

A handwritten signature in cursive script, appearing to read "Gregg Cantelmo".

March 29, 2004